Protocol Title: Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain Management in Patients Receiving Osseocutaneous Free Flaps

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NCT03349034

Date: 9/19/2018

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Amendment
IRB-17-01893
Brett Miles

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1. Modification

Summary of the Modification Request

serum ropivacaine levels will not be monitored.

Spanish consent form has been updated to remove serum level monitoring

Justification for the Modification

After consulting with Sinai Anesthesia Pain Service and the literature* it is clear that this was not needed. It is not standard to monitor these levels with infusion and previous studies were done to demonstrate that it wasn't necessary previously. Further, several studies have been done without monitoring the levels. The amount of Ropivacaine we are infusing is too low to reach systemic toxicity levels.

This Modification Changes the Consent Document or Information that May Affect Subjects' Willingness to Continue to Participate in the Research Yes

Description of Changes in the Consent Document or Information that May Affect Subjects' Willingness to Continue to Participate in the Research

serum ropivacaine levels will not be monitored and has been removed from the consent.

Subjects Will Be Re-Consented or Provided with the New Information Yes

Proposed Plan to Re-Consent Subjects or to Provide Them with the New Information

All subjects will be re-consented during their follow-up visits.

Explanation Why Re-Consenting or Providing Subjects with the New Information is Not Necessary

2. Summary - Title

Protocol Title

Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain Management in Patients Receiving Osseocutaneous Free Flaps

Principal Investigator Brett Miles

When the application is complete, it will be sent to the PI for submission

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Primary Department Otolaryngology

When the application is complete, it will be sent to the PI for submission

Application Initiated By Leslie Waters-Martin

Lay Summary

Head and neck oncologic surgery often requires the use of free tissue transfer, or microvascular reconstruction, to reconstruct defects created by tumor resections. Although there are several techniques for the reconstruction of defects, resection of large tumors leave defects that require the transfer of vascularized tissue from one part of the body to repair the defect. For example, the removal of a segment of diseased mandible requires free tissue transfer containing the component parts - skin, muscle, and bone - to reconstruct the deficit created by the resection of the tumor. Over the years, microvascular surgeons have focused their attention on maximizing the success of these technically difficult surgeries. However, now, with free flap reconstruction rates in excess of 95%, surgeons are afforded the opportunity to turn their focus toward the morbidities associated with these surgeries. While much has been published about donor site wound healing, pain control in the post-operative period has largely been neglected in the head and neck reconstruction literature. Systemic analgesia with opioids is standard of care, which has been shown to lead to increased confusion, significantly increased length of stay and increased risk of pulmonary complications (Oderda et al., Pizzi et al.). In addition, it has been shown that early mobilization and optimal wound care can decrease donor site morbidity.

In this study we aim to better control donor site pain utilizing local, targeted analgesia to relieve pain at the donor site for osseocutaneous free-flaps. To reduce confounding and bias, the study will be a double-blind prospective randomized placebo controlled trial wherein patients undergoing osseocutaneous free flap surgery will be randomized to receive continuous infusion of ropivacaine or normal saline (placebo) via intraosseous catheter, which will be placed intraoperatively at the time of donor site closure. Patients' pain will be monitored for the first 48hrs after surgery. Donor site and global pain at rest will be evaluated every 8 hours for the first two postoperative days using a standard pain assessment via a numeric pain scale (0-10). Median daily opiate use via PCA will also be tracked. Donor site-specific range of motion and strength will be assessed with a formal physical therapy evaluation on post-operative day 2 or soonest non-holiday weekday. Information on patient satisfaction, time to ambulation, and length of stay will also be collected. Subgroup analysis will be performed.

IF Number IF2027486

3. Summary - Setup

Funding Has Been Requested / Obtained	No
Application Type	Request to Rely on Mount Sinai IRB
Research Involves	Prospective Study ONLY
Consenting Participants	Yes
Requesting Waiver or Alteration of Informed Consent for Any Procedures	No
Humanitarian Use Device (HUD) Used Exclusively in the Course of Medical Practice	No
Use of an Investigational Device to Evaluate Its Safety or Effectiveness	No
Banking Specimens for Future Research	No
Cancer Related Research that Requires Approval from the Protocol Review and Monitoring Committee (PRMC).	No

Is this Cancer Related Research? Cancer Related Research is defined as research that has cancer endpoints or has a cancer population as part of or all of its targeted population. This includes protocols studying patients with cancer or those at risk for cancer.

Clinical Trial Yes

**** A prospective biomedical or behavioral research study of human subjects that is designed to answer specific questions about biomedical or behavioral interventions (drugs, treatments, devices, or new ways of using known drugs, treatments, or devices).***
**** Used to determine whether new biomedical or behavioral interventions are safe, efficacious, and effective.***

Drugs / Biologics Yes

**** Drugs / Biologics That Are Not a Part of Standard Practice***
**** Controlled Substances***
**** Drugs / Biologics Supplied by the Research Sponsor or Purchased with Study Funds***

Ionizing Radiation for imaging or therapy, including X-Ray, Fluoroscopy, CT, Nuclear Medicine, PET andor Radiation Therapy:

*** Purely for standard of care:**	Yes
*** In frequency or intensity that exceeds what is necessary for standard of care:**	No

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Hazardous Materials No

**** Recombinant DNA***

**** Viral Vectors***
**** Plasmids***
**** Bacterial Artificial Chromosomes***
**** Toxic Chemicals, Potentially Toxic Medications, Carcinogens***
**** Autologous Cell Lines***

Request Use of Clinical Research Unit Resources No

4. Summary - Background

Objectives

Research Question: Can continuous infusion of ropivacaine improve donor site pain control at rest compared to placebo in the post-operative period?

Hypothesis 1: Continuous infusion of ropivacaine will improve donor site pain control at rest compared to placebo in the post-operative period

Hypothesis 2: Continuous infusion of ropivacaine will improve patients ability to achieve PT milestones compared to placebo in the post-operative period

Objectives:

1) Determine whether there is a significant difference in donor site pain at rest with continuous infusion of ropivacaine vs saline at the donor site. Pain will be assessed globally and specifically at the donor site.
- Pain will be assessed every 8 hours for the first 48 hours using a numeric pain scale (0-10) at rest.
- Time of extubation will be considered time zero. Then every 8 hours after that time, the patient will have their pain assessed. A total of 6 pain assessments will be performed in the 48 hour period.
- A numeric pain scale will be used to rate patient level of pain.
- The patients subjective pain will be tested and recorded at rest, with no intervention. Patients will be asked their global, or overall, pain level. They will then be asked their pain at the donor site specifically.

2) Patients will be given standard of care opiates via PCA.
Patients will be provided a dilaudid PCA, set for low dose, opioid naïve patients.
- The amount of opiates required by patients with continuous infusion ropivacaine vs saline placebo will be recorded

3) Determine whether there is an association between continuous infusion of ropivacaine vs saline at the donor site and achievement of PT milestones
- At post-operative day 2 (or soonest non-holiday weekday if surgery is performed on Friday), patients will receive a physical therapy evaluation where patients will be compared on basic physical therapy milestones.
- Distance able to ambulate, range of motion, strength - standard measures already obtained during standard physical therapy consultation. Distance able to ambulate will be measured in feet. Range of motion is a descriptive variable (within normal limits, within functional limits, etc.). Strength is measured on the standard neurological strength scale out of 5.
- Total length of stay will be compared between groups to look for a correlation between continuous infusion ropivacaine pain control and decreased length of stay

4) Determine whether there is an association between continuous infusion ropivacaine pain control vs saline placebo and patient satisfaction
- A standardized pain satisfaction survey (see attachments) will be distributed to patients prior to discharge rating their overall satisfaction with postoperative recovery from osseocutaneous free flap

Purpose:
The purpose of the study is to determine whether infusion of ropivacaine vs saline at the donor site will significantly decrease donor site pain and whether there is any correlation between pain control, achievement of PT milestones, length of stay, and patient satisfaction.

Background

Free flap reconstruction success rates have reached >95%, allowing surgeons to focus on minimizing morbidity associated with the surgery. There has been a great deal of literature focused on donor site wound healing including the use of negative pressure wound therapy, skin grafts, and local rotational and advancement flaps. However, there is scant high quality evidence about donor site morbidity in ossecutaneous free flaps. In particular the literature is lacking on donor site pain management outside of standard intravenous analgesia (PCA pump, IV push, etc.)

Donor site pain is a known complication of osseocutaneous free flaps (Klein et al, Harris et al). One study found that out of forty procedures with the highest pain scores (median numeric rating scale, 6–7) twenty-two were orthopedic/ trauma procedures on the extremities (Gerbershagen et al), which are the most frequent donor sites for head and neck free flap reconstruction. A specific example from orthopedics is the use of iliac crest bone grafts for spine

arthrodesis procedures. These bone grafts are associated with immediate donor site postoperative pain and difficulty ambulating, persistent donor site pain at >3 months in 26% of patients, and functional impairment (Silber et al. 2003). Indeed, donor site pain may restrict mobility, preventing adequate rehabilitation and early ambulation resulting in co-morbidities such as VTE, pneumonia and pressure ulcers (Oderda et al., Pizzi et al.). In addition, early rehabilitation may also prevent gait disturbance long term or site-specific functional deficits and allow for participation in physical therapy protocols.

The mainstay of postoperative pain management in patients receiving osseocutaneous free flaps is opioids. Opioids carry a variety of risks including decreased mobility leading to complications such as DVT and decreased respiratory drive leading to pneumonia. As such, alternative pain control methods are preferred for early ambulation and recovery. There is evidence in other surgical fields that the use of donor site catheter-based analgesia may alleviate pain at the donor site. There have been several small trials in the orthopedic and craniofacial surgery literature that have evaluated the use of long acting anesthetic agents for pain control in iliac crest bone grafts (Singh 2005, Singh 2007, Brull 1992, Sbitany 2010, Meara 2011, Samartzis 2016). Although results vary with respect to patient reported pain score, patient satisfaction, and hospital stay, three out of four studies reported decreased opioid usage when receiving local anesthesia versus no pain control (Singh 2005, Singh 2007, Meara 2011, Brull 1992, Sbitany 2010, Samartzis 2016). Further, prior studies have postulated that the use of local anesthesia may prevent the development of chronic post-operative pain by blocking nociceptive stimuli and suppressing the hyperexcitable state in the central nervous system (Tverskoy 1990). As a result, the benefits of donor site analgesia in the post-operative period may extend beyond the length of their use.

The research design utilized in this study is not unique, and in fact has been utilized in the fields of orthopedic and plastic surgery to study the use of donor site analgesia (Blumenthal et al., Heller et al.). We seek to replicate the double-blind placebo controlled trial design to evaluate the use of donor site catheter-based analgesia to minimize the morbidity associated with head and neck reconstructive surgery donor site pain.

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Primary and Secondary Study Endpoints

Primary Study Endpoint: Median postoperative pain score on a 10 point numeric pain scale, recorded over the 48 hours.

Secondary Study Endpoints: total opiate consumption, achievement of physical therapy milestones, patient satisfaction, and side effects of opiates (nausea/vomiting, pruritus)

Primary Safety Endpoints: Infection at the site of local infusion catheter, donor site hematoma, seroma, wound dehiscence, compartment syndrome, and ropivacaine toxicity or allergy

Protocol Was Already Approved by the Icahn School of Medicine at Mount Sinai (ISMMS) Institutional Review Board (IRB) Under a Different Principal Investigator	No

Protocol Was Previously Submitted to an External(non-ISMMS) IRB	No

5. Research Personnel

Name/Department	Role/Status	Contact	Access	Signature Authority	Phone	Email
Brett Miles / Otolaryngology	Principal Investigator /		Signature Authority			
Leslie Waters-Martin /	ARA /		Signature Authority			
Scott Roof /	CI /		Edit Access			
Rocco Ferrandino /	CI /		Edit Access			
Samuel DeMaria /	CI /		Read-only Access			
Yury Khelemsky /	CI /		Read-only Access			
Caroline Eden /	CI /		Edit Access			
Marita Teng /	CI /		Read-only Access			
Eric Genden /	CI /		Read-only Access			
Darejan Gogveridze /	CI /		Edit Access			
Annika Meyer /	CI /		Read-only Access			
Joshua Rosenberg /	CI /		Read-only Access			
Mike Yao /	CI /		Read-only Access			
Nicolette Florio /	ARA /		Edit Access			

6. Sites

Site Name	The Mount Sinai Hospital
Other External Site Name	
Contact Details	
Approved	
Approval Document	
Funded By Mount Sinai	
Other IRB	

7. Subjects - Enrollment

Site Name	The Mount Sinai Hospital
Subjects To Be Enrolled	
40	
Total Number of Subjects to be Enrolled Across All Listed Sites Above (Auto Populated)	40

8. Subjects - Populations

Inclusion Criteria

1) Patients receiving osseocutaneous free tissue transfer regardless of the indication for free tissue transfer. This includes osseocutaneous tissue from fibula and scapula
2) Age # 18

Exclusion Criteria

1) Patients unable to understand the research protocol and/or provide informed consent
2) Patients under the age of 18
3) Patients with a history of allergic reaction to ropivacaine or other local amide anesthetics
4) Patients whose participation in this trial would require exclusion from participation in another clinical research trial related to the patient's malignant diagnosis.
5) Patients with previous pain disorders or drug abuse requiring chronic narcotic use.
6) Vulnerable populations (adults unable to consent, individuals who are not yet adults, wards of the state, prisoners)

Enrollment Restrictions Based Upon Gender, Pregnancy, Childbearing Potential, or Race	No
Age Range(s)	18 to 64 Years, 65 Years and Over
Targeted Population(s)	Adults - Patients

Other Aspects that Could Increase Subjects Vulnerability

Access to personal health information; however, all research data will be viewed only by research team members, and all data will be encrypted and password protected and stored on a Mount Sinai hospital computer located in the Otolaryngology Resident Library on the 10th floor of the Annenberg building. The library is locked at all times and requires a password for entry.

Safeguards to protect Subjects rights and welfare

Data obtained in this project will be in the form of an excel spreadsheet. All data will be de-identified and labeled with a unique code, and kept on a password-protected hard drive at the Mount Sinai Medical Center. The names of the patients will not be released to any outside organizations or to persons not involved with the investigation. They will not be revealed in written reports or publications detailing the research findings.

9. Subjects - Participation

Duration of an Individual Subjects Participation in the Study

Participation in this research study is expected to last the duration of the patient's initial post-surgical hospital stay, or a total of approximately 1 week from the time of surgery. The infusion catheter will be removed on post-operative day 2 (48 hours after surgery). A physical therapy evaluation will happen on post-operative day 2 (or soonest available non-holiday weekday, if surgery is performed on Friday), as is standard of care. Additionally, patients will be asked to complete a survey regarding their satisfaction with pain control prior to discharge.

Duration Anticipated to Enroll All Study Subjects

24 months

Estimated Date for the Investigators to Complete This Study Within two years

Procedures for Subjects to Request Withdrawal

Enrolled subjects may decide to withdraw from the study at any time in the post-operative period, in which case the infusion catheter will be removed, and standard of care pain assessment and control methods continued.

The rate of patient withdrawal will be continuously reviewed during the study to analyze for any adjustment that might be required to our sample size and to perform the appropriate statistical analyses of the data collected.

Procedures for Investigator to Withdraw Subjects

Previously enrolled subjects who do not meet inclusion criteria due to an an intraoperative decision will be removed from the study. For instance, if an initially planned free tissue transfer reconstruction is forgone for a local-regional flap reconstruction the subject will no longer meet criteria for inclusion into the study. Once patients are withdrawn, a record of the signed consent form along with the reason for withdrawal will be stored and filed.

Enrolled patients who fail to have a successful placement of donor site catheter will be withdrawn from the study.

Participants Will Be Recruited Yes

Recruitment Method(s) Clinical Practice

How Participants Will Be Identified

Patients presenting to the Tisch Cancer Institute or the Department of Otolaryngology Head and Neck Surgery for a pre-operative evaluation whom meet inclusion criteria will be recruited at the time of their visit.

Who Will Initially Approach Potential Participants Study Personnel, Treating Physician, Clinic Personnel

How Research Will Be Introduced to Participants

All patients presenting to the Tisch Cancer Institute or the Department of Otolaryngology Head and Neck Surgery will be screened for satisfaction of inclusion and exclusion criteria by the attending head and neck surgeon during routine history and physical examination during their regularly scheduled preoperative visit. Once identified, the patient will be approached by the attending physician to discuss the research and obtain consent. If amenable, the patient may be directed to further discuss the study and answer any additional questions or concerns with a member of the research team. If the patient wishes to have more time to think about his/her participation in the study, he/she will be given the consent form and asked to fill it out at a time of his/her own convenience. Should he/she choose to participate, the patient will be instructed to bring the completed consent form with him/her on the date of his/her surgery. Should a patient elect to have more time to decide on his/her participation (as outlined above), a member of the research team will call them within a week of the date of the scheduled surgery to remind them to bring the consent form, should he/she wish to participate, and answer any additional questions at that time. No new information or discussion of the study will be provided on the date of surgery. If a patient is identified for participation in the study during an inpatient hospitalization, the patient will be approached about the study by the attending physician or member of the research team at least two days prior to the date of the surgery.

How Participants Will Be Screened

Participants will be identified based on the history and physical exam performed by the Otolaryngology attending or resident

10. Procedures - Narrative

Description of the Study Design

To reduce confounding and bias, the study will be a double-blind prospective randomized placebo controlled trial wherein patients undergoing osseocutaneous free flap surgery will be randomized to receive continuous infusion of ropivacaine or normal saline (placebo) via intraosseous catheter, which will be placed intraoperatively at the time of donor site closure.

Description of Procedures Being Performed

Intraoperatively, following procurement of the fibula or scapula bone graft and at the time of surgical wound closure, all patients will receive the placement of a continuous infusion catheter into the donor site wound bed. The infusion reservoir will be connected to a catheter-based On-Q pump, and the catheter will be placed in the donor site. A stab incision separate from the surgical wound will be used to bring the catheter through the skin. Patients will be randomized to receive 6 ml/hr of 0.2% Ropivacaine or 6 ml/hr of normal saline via the infusion reservoir. The catheter will be left in place with continuous infusion for first 48 hours of the post-operative period. The catheters will be removed by the housestaff on POD2. There is minimal risk to removing the OnQ catheter. Any opening in the skin will be covered with gauze to allow primary healing. Solutions of saline and ropivacaine will be prepared and made available for infusion by the Mount Sinai Pharmacy. Solutions will be blinded, and identical in appearance. Patients will be assigned to ropivacaine or saline intervention by the research pharmacy through coded envelopes. Patients, physicians, nurses, and research personnel will be blinded to treatment assignment. Every 8 hours for the first 48 hours, patients will be asked to complete a visual analogue scale (VAS) for reporting their pain. The VAS will be performed six times over the course of the 48hrs. These will be performed during regular flap check monitoring, to ensure patients are not disrupted additional times throughout the day for this study.

Prior to discharge from the hospital, the study subjects will be asked to complete a brief survey (APS-POQ-R Pain Survey) regarding their experience, with regard to pain management.

Description of the Source Records that Will Be Used to Collect Data About Subjects

The source records used will come from the electronic medical records of patients at the Mount Sinai Hospital. The electronic medical record system used at MSH is Epic. The information collected will be age, race, sex, BMI, comorbid conditions, tumor grade/stage, operative time, length of stay, ASA status, intra-operative analgesic use, post-operative opioid use, Ropivacaine levels, time to PCA removal, pain scores, time and distance of ambulation, strength, and the standard physical therapy evaluation.

Description of Data that Will Be Collected Including Long-Term Follow-Up

1) Donor site specific and global pain scores using the visual analogue scale (VAS) will be collected every 8 hours for the first 2 postoperative days. The VAS pain scale will be measured and recorded by a member of the research team.
2) Opioid usage will be collected by interrogating the PCA pumps during the first 2 postoperative days.
3) Physical therapy milestones will be assessed on the second postoperative day (or soonest non-holiday weekday, if surgery is performed on Friday) by formal physical therapy evaluation.
4) A standardized pain satisfaction survey will be distributed and recorded prior to discharge

Research Requires HIV Testing No

11. Procedures - Genetic Testing

Genetic Testing Will Be Performed No

Guidance and Policies > Future Use Data Sharing and Genetic Research

12. Procedures - Details

Surveys or Interviews	Yes
Type of Instruments Being Used	Standardized

Names of Standardized Instruments

APS-Patient Outcome Questionnaire (APS-POQ-R)

Audio / Photo / Video Recording	No
Deception	No
Results of the Study Will Be Shared with Subjects or Others	No

13. Procedures - Compensation

Compensation for Participation No

14. Consent - Obtaining Consent

Consent Process Adult Consent

Where and When Consent Will Be Obtained

Patients presenting to the Tisch Cancer Institute or the Department of Otolaryngology Head and Neck Surgery for a pre-operative evaluation whom meet inclusion criteria will be recruited at the time of their visit. During the risk and benefits discussion of surgical intervention led by one of our attending surgeons, a brief scripted description of the use of continuous local analgesia will be included and the patient given the option to consent for its use either during the same visit, at a follow up appointment, or the day of surgery. If a patient is missed during their clinic visit and is scheduled for a procedure that meets inclusion criteria he/she will be contacted prior to the surgery date to be made aware of the study. He/she will then be consented at the date of surgery prior to entering the operating room. The operating schedules of the entire Head and Neck Division are reviewed on a weekly basis. Patients pre-admitted prior to their surgery, who meet inclusion criteria, will be recruited at a private inpatient hospital setting at least one day prior to their surgery.

Waiting Period for Obtaining Consent

There will be no minimum waiting period between informing the subject and obtaining consent. However, all patients will be informed of the study at an appointment prior to the day of surgery or at least 2 days prior to the date of surgery should the patient be identified during an inpatient hospitalization.

SOP HRP-090 Informed Consent Process for Research Is Being Used Yes

PPHS Worksheets, Checklists and SOPs

Process to Document Consent in Writing Will Use Standard Template

Non-English Speaking Participants Will Be Enrolled Yes

What Languages Other Than English Will Be Used

Spanish and Chinese comprise the majority of Mount Sinai patients who are non-English speaking. All patients will be consented in their primary or native language, using a translator service (either in person or via telephone).

What Process Will Be Used Long Form

The consent document must be translated into the language of the potential subject, and approved by the IRB, before you can go through the consent process with the non-English speaking person. If, after the project is approved, a short form consent process is needed, please see the PPHS policy and submit a modification.

15. Consent - Documents

Consent Documents

Type	The Mount Sinai Health System Consent Form to Volunteer In A Research Study And Authorization For Use and Disclosure Of Medical Information
Name	Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain Management in Patients Receiving Osseocutaneous Free Flaps
Upload	Ideate Consent Form Spanish Version.docx
Type	IdeateHRP-502 MSHS Template Consent for Adult Subjects
Name	Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain
Upload	Ideate HRP-502a MSHS Template Consent for Adult Subjects. V3 clean 7 .3.17.doc
Type	IdeateHRP-502 MSHS Template Consent for Adult Subjects
Name	Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain
Upload	Ideate HRP-502a MSHS Template Consent for Adult Subjects. V3 tracked 7 .3.17.doc
Type	Ideate HRP502 Spanish Consent for Adult Subjects
Name	Role of Continuous Local Infusion of Ropivacaine for Post-Operative Pain
Upload	Ideate Consent Form Spanish Version.docx

Consent Templates

16. Data - Collection

Health Related Information Will Be Viewed, Recorded, or Generated Yes

Description of Health Information That Will Be Viewed, Recorded, or Generated

The information collected will be BMI, comorbid conditions, tumor grade/stage, ASA status, intra-operative analgesic use, post-operative opioid use, Ropivacaine levels, time to PCA removal, pain scores, time and distance of ambulation, strength, and the standard physical therapy evaluation.

Non-Health Related Information Will Be Viewed or Recorded Yes

Description of Non-Health Information That Will Be Viewed or Recorded

Age, race, sex, operative time, date and length of stay

HIV / AIDS Related Information Will Be Viewed or Recorded No

Data That Will Be Viewed, Recorded, or Generated Contains ANY of the Following Directly Identifiable Information No

**** Name***
**** Social Security Number***
**** Medical Record Number***
**** Address by Street Location***
**** Telephone Number***
**** Fax Number***
**** Web Uniform Resource Locators (URLs)***
**** Internet Protocol (IP) Address***
**** Health Plan Beneficiary Number***
**** Account Number***
**** Certificate***
**** License Number***
**** Vehicle Identification Number (Including License Plate Numbers)***
**** Full-Face Photographic Images***
**** Biometric Identifiers (Finger and Voice Prints)***
**** Geographical Subdivisions Smaller Than a State***
**** All Elements of Dates for Dates Directly Related to an Individual (i.e., Birth Date, Admission Date, Discharge Date)***
**** Email Address***

Data Collection Sheet

A Data Collection Sheet is required if you are either performing a retrospective review, or your study meets the category of exempt 4 research, or your study meets the category of expedited 5 research. Please upload it here.

Data Collection Source(s) Participant, Medical Chart (Paper or Electronic)

17. Data - Storage

Location Where Data Will Be Stored

All data points will be maintained on a database created for this study using Microsoft Excel or HIPAA-compliant spreadsheet. This database will only be accessible by the research personnel listed in the IRB by using password-protected hard drive at Mount Sinai as well as encrypted email (Mount Sinai emailing system). To maintain confidentiality all personal identifiable information will be removed from the database and labeled with a unique code. Consent forms for the study will be kept in a secure locked cabinet at our department. The data obtained from this study will be maintained indefinitely but only accessible by the investigators/coordinators on this study who are all HIPPA trained.

How will the data be stored?	With a Code That Can Be Linked to the Identity of the Participant
Research Personnel Responsible for:	Brett Miles
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	Yes
Research Personnel Responsible for:	Leslie Waters-Martin
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	Yes
Research Personnel Responsible for:	Scott Roof
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Rocco Ferrandino
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Samuel DeMaria
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Yury Khelemsky
Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Caroline Eden

Accessing Data	Yes
Receipt or Transmission of Data	Yes
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Marita Teng
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Eric Genden
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Darejan Gogveridze
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Annika Meyer
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Joshua Rosenberg
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Mike Yao
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No
Research Personnel Responsible for:	Nicolette Florio
Accessing Data	No
Receipt or Transmission of Data	No
Holding Code That Can Be Linked to Identity of Participants	No

Duration Data Will Be Stored

The data obtained from this study will be maintained indefinitely but only accessible by the investigators/coordinators on this study who are all HIPPA trained.

Steps That Will Be Taken to Secure the Data During Storage, Use, and Transmission

This database will only be accessible by the research personnel listed in the IRB by using password-protected hard drive at Mount Sinai as well as encrypted email (Mount Sinai emailing system). To maintain confidentiality all

personal identifiable information will be removed from the database and labeled with a unique code. Consent forms for the study will be kept in a secure locked cabinet at our department.

Data Analysis Plan Including Any Statistical Procedures

Intra- and inter-patient pain scores are expected to be highly variable and non-normally distributed, thus median pain score after 6 measurements will be reported for each enrolled subject. Non-parametric Wilcoxon rank-sum test will be used to compare treatment groups. A sample size of 15 in each group will have 80% power to detect a probability of 0.800 that a pain score in the local anesthesia group is less than a pain score in the placebo group using a Wilcoxon (Mann-Whitney) rank-sum test with a 0.050 two-sided significance level. We will aim to recruit 20 patients per treatment group to account for patient drop out.

Information on patient demographics, patient satisfaction, time to ambulation, and length of stay will also be collected. Subgroup analysis will be performed.

18. Data - Safety Monitoring

More Than the Minimum Data Safety Monitoring Will Be Done	Yes
Principal Monitor	Brett Miles
Additional Monitors	
Name	Samuel DeMaria
Title	Instructor
Department	Anesthesiology
Contact Details	Work1 Gustave L Levy PlaceNew YorkNY10029
Type	
Name	Marita Teng
Title	Assistant Professor
Department	Otolaryngology
Contact Details	WorkOne Gustave L. Levy PlaceNew YorkNY10029
Type	
Name	Yury Khelemsky
Title	Assistant Professor
Department	Anesthesiology
Contact Details	WorkOne Gustave L. Levy PlaceNew YorkNY10029
Type	

Specific Items That Will Be Monitored for Safety

Patient reported adverse events related to toxicity of Ropivacaine.

Patients will be monitored for signs and symptoms of Ropivacaine toxicity including but not limited to metallic taste, tinnitus, nausea, vomiting, seizures, cardiac arrhythmias, and cardiovascular collapse.

Frequency of Data Review

The DSMC will meet bi-annually and/or more often if required to review data safety.

Rules for Alteration of Study Design

In the event of toxicity, catheter system will be
immediately removed and the acute pain service will escalate care as indicated.

Selection Procedures to Minimize Toxicity

Patients with a history of allergic reaction to Ropivacaine or other local amide anesthetics will not be enrolled in the study., Additionally, patients with previous pain disorders or drug abuse requiring chronic narcotic use will not be enrolled in the study.

Grading System to Evaluate Adverse Events

The descriptions and grading scales found in the revised NCI Common Terminology Criteria for Adverse Events (CTCAE) version 4.0 will be utilized for AE reporting.

Procedures to Assure Data Accuracy

The selected principle monitor has established relationships with the subjects that will enable him to identify risks to the subjects. The PI or a delegate will inquire about adverse events at each follow-up visit. The PI will maintain records of all adverse events and will use the NCI Common Terminology Criteria for Adverse Events (CTCAE) for documentation. Additionally, a data and safety monitoring committee (DSMC) will be established and consist of the principal investigator and co-investigators. Adverse events will be reviewed at least bi- annually, or, more often if needed. To help capture data for adverse events in the discharged postoperative period, the participant will be given the contact information of the research coordinator at the time of consent in order to report any adverse events. The research coordinator will document the unexpected adverse events, or expected adverse events with higher than

expected severity, and their resolution on a detailed log for the regulatory binder, on PDMS, and to the PI. Serious adverse events will be reported immediately to the IRB.

Suspension Reported to

Adverse events occurring during the study will be reported to the Mount Sinai Program for the Protection of Human Subjects (PPHS). Any suspension of the study will be reported to the PI and PPHS.

Anticipated Circumstances of Subject Withdrawal

Previously enrolled subjects who do not meet inclusion criteria due to an an intraoperative decision will be removed from the study. For instance, if an initially planned free tissue transfer reconstruction is forgone for a local-regional flap reconstruction the subject will no longer meet criteria for inclusion into the study. Once patients are withdrawn, a record of the signed consent form along with the reason for withdrawal will be stored and filed. Enrolled patients who fail to have a successful placement of donor site catheter will be withdrawn from the study.

Primary or Secondary Safety Endpoints

Median postoperative pain score on the visual analogue scale (VAS), recorded over the 48 hours. Secondary Study Endpoints: total opiate consumption, achievement of physical therapy milestones, patient satisfaction, and side effects of opiates (nausea/vomiting, pruritus) Primary Safety Endpoints: Infection at the site of local infusion catheter, donor site hematoma, seroma, wound dehiscence, compartment syndrome, and ropivacaine toxicity or allergy

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Data Monitoring Committee Description	DSMC Description.docx
DMC Charter Available	No
Will the Research Include Data Coordinating Center Activities?	No

19. Drugs / Biologics

Study Fund Account (or alternate departmental / fund account, if study is not yet established)	0244-4460
Select One:	Alternate or Temporary Fund (e.g. Departmental Fund)

A fund number is required before the IDS will sign off on any forms or initiate any procedures. For those studies which an alternate departmental fund number is provided, IDS will delay billing by 6 months.

Add all drugs and biological agents whose use is specifically prescribed in the research. This includes approved drugs that are supplied or paid for by the company for this research, approved drugs that are not given under routine care guidelines, and all investigational drugs. Approved drugs whose use is up to the discretion of an attending physician as part of medical care do not need to be added. Contact the Investigational Drug Service (IDS) if unsure http://www.mssm.edu/ids .

To be completed by Pharmacy staff upon review of the protocol:

FYI: NO ACTION REQUIRED
IDS FEE SCHEDULE
Review: ___
Initiation:___
Dispensation:___
Maintenance:___
Special Compounding:___
Coordinating Center:___
Close-Out:___

20. Financial Administration

This information will help the Financial Administration of Clinical Trials Services (FACTS) office determine whether a Medicare Coverage Analysis (MCA) is needed for the research study. If you have any questions while completing this form, please contact the FACTS office at (212) 731-7067 or FACTS@mssm.edu.

Clinical Research Study Category Investigator Initiated

Payment Options:
**** Option 1: No protocol-required services will be billed to patients or third-party payers. Does Not Need MCA***
**** Option 2: Protocol-required services (i.e., routine care services) will be billed to patients or third-party payers. Must Have MCA***
**** Option 3: Study is initiated and federally funded by a Government Sponsored Cooperative Group who will only pay for services that are solely conducted for research purposes and other protocol-required services (i.e., routine care services) will be billed to patients or third-party payers. Billing Grid Only Required, NO MCA***
**** Option 4: Study involves only data collection and has no protocol-required clinical services. Does Not Need MCA***
**** Option 5: Study is not described in any of the above options. Please describe the study and specify whether External Sponsor (i.e., industry, government, or philanthropic source) and/or patient/third party payer will pay for protocol required services. MCA MAY Be Required***

Payment Option Option 1

No MCA is needed per option selected above.

Payment Option 1:
**** Option 1A: Department/collaborating departments will act as internal sponsor paying for all protocol-required services and no protocol-required services will be billed to patients or third party payers.***
**** Option 1B: Study involves protocol-required clinical services and an External Sponsor (i.e., industry, government, or philanthropic source) will pay for all protocol-required services.***

Payment Option 1 Option 1A

21. Attachments

Type	Name	Version	Status	Filename	Uploaded Date
Other - Non-valadated Surveys/ Interview Documents	APS-Patient Outcome Questionnaire (APS-POQ-R)	1	approved	APS-POQ-R Pain Survey.pdf	05/06/2017
Data Monitoring Committee Description	DSMC Description.docx	1	approved	DSMC Description.docx	06/08/2017
Other - Non-valadated Surveys/ Interview Documents	VAS pain scale sample/example	1	approved	Visual Analogue Scale Sample.png	06/08/2017
Package Insert Document (DRUG NAME)	Ropivacaine-Naropin Package Insert020533s020s021lbl.pdf	1	approved	Ropivacaine-Naropin Package Insert020533s020s021lbl.pdf	07/05/2017
Other - Other IRB Correspondance	Ideate Spanish Consent Form Attestation	1	approved	LLS Agency Certification.pdf	09/12/2017
Other - Other IRB Correspondance	DSMC Meeting Minutes	1	approved	DSMC Meeting minutes 12.1.17.docx	05/30/2018
Other - Other IRB Correspondance	DSMC Meeting Minutes	1	approved	DSMC Meeting minutes 5.4.18.docx	05/30/2018
Other - Other IRB Correspondance	Signed Attestation	1	approved	Find Attestation.pdf	07/27/2018
Consent - Consent Document	Ideate 502a Consent Form English	1	New	Ideate HRP 502-Clean Role of Ropivacaine English 09.05.2018.doc	09/19/2018
Consent - Consent Document	Ideate 502 Consent Form Spanish	1	New	Ideate HRP 502-Clean Role of Ropivacaine Spanish 09.05.2018 ....docx	09/19/2018